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ABSTRACT

Factors involved in evaluating multiply handicapped children are examined. Described are instruments and techniques for measuring three central concerns: (1) the extent to which the impairments limit the child's functioning (including the Test of Auditory Discrimination and the Children's Embedded Figures Test); (2) the child's ability to complete tasks expected of him/her (such as norm-referenced psychological, language, motor, social-emotional and self care scales); and (3) reasons for the child's performance patterns (including searching for strengths and weaknesses in cognitive functioning and analyzing the Child's language reception and processing). It is explained that the final step involves setting goals and objectives, suggesting a teaching strategy, and stating performance criteria. (CL)

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THE MULTIPLY HANDICAPPED CHILD: THE DIAGNOSTICIAN'S CHALLENGE

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The Multiply Handicapped Child:

The Diagnostician's Challenge

The diagnostician faced with a multiply handicapped child is like an individual calmly pitching a ball in the air who is then given two more balls and told to juggle them. With no training in the fine art of juggling, the individual cries, "Oh no, I can't do that", and simply drops the balls. When first confronted with a child having several impairments, a diagnostician might react in a similiar way, "Oh, no, I can't test that child, I wasn't trained to do that". Whether the examiners are trained or not, the children are appearing in ever increasing numbers and they present a tremendous challenge to the diagnostician open to new experiences.

The Child and the Problem of Assessment

Multiply and severely handicapped children, as a group, have been difficult to define because of the heterogeneity of the group. In order to delineate the particular children of concern in this paper from the multitudes of other exceptional children, it is necessary to define paramenters of the population. The term multiply handicapped is included as a sub-category within the definition of severely handicapped which was formulated by a BEH Task Force. The term severely handicapped was defined as a child whose impairment is of such severity that he can not be served in regular or special education programs.

After reviewing how numerous programs were defining multiple handicapped Walker (1975) concluded the functional definition to be:

(1) two handicaps, each requiring special education services,

(2) handicaps requiring a combination of technologies, and

(3) handicaps requiring extraordinary modification of methods.

A few examples of these combinations are, deaf and blind, physically disabled and deaf, blindness and emotional disturbed, retarded and deaf. The effects of an additional impairment is not just additive, it is multiplicative. These complicated interactions make assessment a challenge.

The purpose and procedure for evaluating the child deserve considerable attention. Testing, evaluating and assessing are used synomously, yet they actually represent different procedures, all of which are included in the diagnostician-child experience. "Testing" simply means exposing an individual or group of individuals to a group of questions or tasks for the purpose of determining the quantitative measurement of a characteristic of that individual. "Assessment" and "evaluation" when used in this context can be considered synomous. They represent the individual interacting with his environment, considers the many variables influencing his behavior, and places this information in a context that can be useful in judging the adequacy of the findings and in making decisions concerning his future. The emphasis in evaluation and assessment is on qualitative findings versus the quantitative findings of testing. Assessment and evaluation include testing considerations, but simply place results in their proper perspective by comparing the results to the person tested rather than to the test used. Assessment and evaluation lead directly to appropriate program planning. Although there is a place for limited testing with multiple handicapped children, by far the majority of the procedure is devoted to assessment and evaluation. The many variables effecting the individual's performances must be given proper consideration.

The Formulation of a Diagnostic Plan

Before beginning an evaluation of a multiply handicapped child, one must know the questions or concerns that need to be considered and the procedures that will provide data to address the concerns. The first concern involves the extent to which the known impairments render the child disabled. The diagnostician is professionally unable to respond to this concern; the physician's report must be reviewed. This report will help the diagnostician decide how to proceed with the evaluation, and what will and will not be possible through intervention. For example, a child with total blindness and a legally blind child with useable vision present two very different individuals in terms of how they can be tested and what, through intervention, they can be trained to do.

Although medical reports may provide the diagnostician with a description of the extend of the impairment, they seldom reflect upon the effectiveness with which a child can use his remaining functional ability. For this information, the diagnostician has to rely on a critical issue: that of functional ability. Barraga's work (1964) with blind children demonstrated it was not the degree of visual acuity that the child had, but his ability to effectively use what he had that made the difference in what he could be taught.

Among the available tests that can be used to gather information regarding how well a child is preceiving auditory input are the Test of Auditory Discrimination (Wepman, 1966), and Goldman-Fristoe-Woodcock Test of Auditory Discrimination (Goldman, Fristoe & Woodcock, 1970). Processing of visual information can be noted in tests of figures ground discrimination such as the Children's Embedded Figures Test (Karp & Konstadt, 1963) the Developmental

Test of Visual Perception (Frostig, Lefever & Whittlesey, 1966) and the Motor Free Test of Visual Perception (Colarusso & Hammill, 1972). With lower functioning children it is necessary to observe their visual responses at various distances to objects and pictures of various sizes and shapes. Procedures for determining functional vision in an informal manner have been described in detail by Langley and DuBose (1976). Procedures for observing auditory responses in low functioning children have been described by Tweedie (1975). Answers to the above question regarding the extent of the impairment and the child's use of his residual ability guide the diagnostician in gathering data to answer the remaining questions.

The second question focuses on the child's ability to do the work he is expected to do. Given his age, and his impairments, how does he compare with similar children? The data gathered to answer this question usually comes from psychological testing according to structured procedures stated in the manual. Scores are norm-referenced and indicate whether or not this isolated demonstration of the child's ability is characteristic of children his age. Finding tests that produce this information without penalizing the child because of his impairments is not a simple matter. It requires the diagnostician to carefully analyze subtests and select and adapt tests that will fit each child's needs. This question needs to be asked about every area of development effecting learning and educational programming. When considering congitive skills, individual intelligence measures such as the Stanford-Binet (Terman & Merrill, 1960), the Wechsler Intelligence Scale for Children Revised (Wechsler, 1974), the McCarthy Scales of Children's Abilities (McCarthy, 1972), the Bayley Scales of Infant Development (Bayley, 1969), Merrill Palmer Scale of

Mental Tests (Stutsman, 1931), the Hiskey-Nebraska Test of Learning Aptitude (Hiskey, 1966), the Leiter International Performance Scale (Leiter, 1952) and the Columbia Mental Maturity Scale (Burgemeister, Blum & Lorge, 1972) provide a pool of tests from which an appropriate measure can usually be found.

In looking at language skills, the Illinois Test of Psycholinguistic Abilities (Kirk, McCarthy & Kirk, 1961), the Receptive-Expressive-Emergent Languag Scale (Bzoch & Leauge, 1970), the Pre-school Language Scale (Zimmerman, Steiner & Evatt, 1969), the Test of Auditory Comprehension of Language (Carrow, 1973), Carrow Elicited Language Inventory (Carrow, 1974), the Northwestern Syntax Screening Test (Lee, 1963) and the procedures outlined by Laura Lee (1974) for analyzing sentence structures are among the tests that provide input on the state of a child's language abilities.

Motor development can be examined through the Peabody Developmental Motor Scales (Folio & DuBose, 1974), the Frostig Movement Skills Battery (Frostig & Horne, 1964), and the Lincoln-Oseretsky Motor Development Scale (Sloan, 1955). The Visual Motor Integration Test (Barry, 1967) and a number of subtests from the Detroit Test of Learning Aptitude (Leland & Baker, 1959) provide additional information on the child's fine motor development.

Social-emotional and self-care development are usually determined through interview scales such as the Cain-Levine (Cain, Levine & Freeman, 1963), the Vineland Social Maturity Scale (Doll, 1965) and the Adaptive Behavior Scales (Nihira, Foster & Shellhaas, 1974). Self concept can be investigated through the Primary Self Concept Inventory (Muller & Leonetti, 1974) or the Piers Harris Self Concept Scale (Piers, 1967).

The above referenced tests are administered in part or whole for the

purpose of determing how well the child performs tasks when compared to children of his age or with similar handicaps. The results are best understood when expressed in an age score. Saying to a parent that their child's language is similar to the language of a child two to two and one-half years places the performance in a context that is meaningful to them.

The third question is the key to programming. The diagnostician must now investigate why the child performs the way he does. The answers to question two were quantitative answers, while the answers to question three are qualitative answers. The data from question two play an important role in answering this question, but question three requires more thorough investigation of the child's abilities under various circumstances and using an array of materials, techniques, procedures and persons.

Looking first at his cognitive abilities, the diagnostician seeks to determine whether or not the reason the child performs the way he does is due to his failure to develop certain sensorimotor schemas or skills of manipulation, discrimination, seriation, assoication, conceptualization, reasoning and generalization. This requires applying one's understanding of intellectual development to the child's performance on tasks and determining the relationship between these factors. The diagnostician searches for patterns to pinpoint strengths and weaknesses to facilitate programming. Much of the supplementary information must come from the diagnostician's presentation of tasks such as seriation using different materials representing objects, pictures, numbers, sizes and shapes. If the child is unusually responsive to trucks, the ability to arrange trucks in order of size might be the first indication that seriation skills are within his repertoire but have not generalized to include other materials.

Language skills must be investigated by breaking down the skills into receptive, expressive and integrative processes. Some of the tests described previously do this and once given, comparison of the test results should prove fruitful in anlyzing why the child is not using the language skills he should have at his disposal. An understanding of receptive language in a multiple handicapped child can not be limited to test data; it must concern how he receives all sensory impressions and utilizes the information. The fact that he sees his mom cooking supper or perhaps only smells the food, then goes to the table and sits in his appropriate seat, is receptive communication. He is receiving signals, interpreting them and responding in a fashion that is appropriate for a particular level of language development. This kind of careful observation of the child's interaction with people and objects is the primary data source for understanding communication in severely handicapped children. These interactions can be analyzed for more precise developmental information using procedures such as the Uzgiris-Hunt Scale (Uzgiris & Hunt, 1975), (Mehrabian & Williams, 1971) or the Inner Language Scale (Branston & DuBose, 1974). This information will help the diagnostician determine whether the child is communicating on a signal or a symbolic level and suggest a program to develop higher means of communicative behavior.

To determine why the child's motor skills are deficient, one must break down the skills into component parts and determine where the failures are occurring. Skills can also be grouped according to the ability required: balance, locomotion, receipt and propulsion of objects and agility are key concerns that need closer scrutiny to determine the score of motor delays. The criterion levels acknowledged in the Peabody Developmental Motor Scales

allow the diagnostician to specify how much help the child needs in order to complete the motor tasks. Severely handicapped children's progress is frequently in very small increments and movement across skills is more likely than movement to higher level skills.

Determining why social and self care skills are not developing as expected requires seeing the child when he is alone as well as when he is around other children and adults. The kind and quality of interactions give the diagnostician clues to the child's social skills. Observing the child taking care of his personal needs at times and in places where the skills are needed is a better way to evaluate the conditions most likely to evoke appropriate responses. A Manual for the Development of Self Help in Multiply Handicapped Children (Hart & DuBose, 1968) includes both a task analysis of each self help skill and a criterion scale to determine the help needed in accomplishing each task. The Guide to Early Developmental Training (Tilton, Liska & Bourland, 1972) and the numerous duplicated self care guidelines available from programs throughout the country are functionally useful in determining where the problems are located.

Once the diagnostician has accumulated data to determine why the child is failing to perform as expected, the fourth and final questions must be answered. What can be done and where do we begin? Herein lies the critical implementation concern that has been so often overlooked in traditional assessment procedures. This is the question that will determine how meaningful the evaluation will be to parents and teachers. Relying on all the data gathered and knowledge of the sequential development of skills, the diagnostician must set appropriate goals and objectives, suggest a strategy for

meeting them and note the criteria for determining successful performance. Hopefully the strategies have been tried and tested with the child during the evaluation process and are personally designed based on the entire qualitative assessment.

By believing in the child and in yourself, a meaningful and functional assessment of a multiply handicapped child is possible. The challenge comes from the child and what he brings to you in the assessment environment. To be prepared for the challenge the diagnostician needs to know the critical concerns, how to address these issues and how to translate your findings into functional programs. More than likely, you were not prepared for the task, nor was the child or his family prepared for his handicaps. The opportunity to respond is in your hands and I trust you will not drop the ball.

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